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4 UNITED STATES PATENT AND TRADEMARK OFFICE
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7 BEFORE THE BOARD OF PATENT APPEALS
8 AND INTERFERENCES
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11 *Ex parte* ROBERT A. CORDERY, DAVID K. LEE, LEON A. PINTSOV,
12 FREDERICK W. RYAN, JR., and MONROE A. WEIANT, JR.
13

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15 Appeal 2008-5511
16 Application 09/650,177
17 Technology Center 3600
18

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20 Decided: January 6, 2009
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23 Before ANTON W. FETTING, DAVID B. WALKER, and BIBHU R.
24 MOHANTY, *Administrative Patent Judges*.
25 FETTING, *Administrative Patent Judge*.

26 DECISION ON APPEAL

27 STATEMENT OF THE CASE

28 Robert A. Cordery, David K. Lee, Leon A. Pintsov, Frederick W. Ryan, Jr.,
29 and Monroe A. Weiant, Jr. (Appellants) seek review under 35 U.S.C. § 134 of a
30 final rejection of claims 35 and 37, the only claims pending in the application on
31 appeal.

32 We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b) (2002).

We REVERSE.

The Appellants invented a secure user certification system for electronic commerce that provides an accounting system for services provided (Specification 1:4-7). The principle claim at issue is drawn to selling a cryptographic certificate service that requires the deduction of funds for operation.

An understanding of the invention can be derived from a reading of exemplary claim 35, which is reproduced below [bracketed matter and some paragraphing added].

35. A method for obtaining a cryptographic certificate, comprising:

[1] receiving at a metering device a request for a cryptographic certificate, the metering device including a register having funds stored therein;

[2] determining if sufficient funds are present in the register for obtaining the certificate;

[3] if sufficient funds are present in the register, generating, at the metering device, a cryptographic key pair including a private key and a public key;

[4] sending a certificate request to a certificate authority, the certificate request including the public key of the cryptographic key pair;

[5] receiving a cryptographic certificate from the certificate authority, the

[6] cryptographic certificate including the public key of the cryptographic key pair generated by the metering device;

[7] deducting funds from the register for obtaining the requested certificate; and

[8] in response to funds being deducted from the register, activating the private key of the cryptographic key pair.

This appeal arises from the Examiner's Final Rejection, mailed June 9, 2005. The Appellants filed an Appeal Brief in support of the appeal on November 10, 2005. An Examiner's Answer to the Appeal Brief was mailed on March 3, 2006. A Reply Brief was filed on April 11, 2006. Another Examiner's Answer to the Appeal Brief was mailed on September 20, 2007. References in this Decision to the Answer are to the one mailed on September 20, 2007.

This is the second time this application has come before the Board. An earlier decision by a different panel was mailed on August 13, 2004. The claims have been since amended.

PRIOR ART

The Examiner relies upon the following prior art:

Fischer	US 5,005,200	Apr. 2, 1991
Taylor	US 5,530,232	Jun. 25, 1996

REJECTION¹

Claims 35 and 37 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Fischer and Taylor.

ISSUES

The issue pertinent to this appeal is whether the Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 35 and 37 under 35 U.S.C. § 103(a) as unpatentable over Fischer and Taylor.

¹ A rejection under 35 U.S.C. § 112 was withdrawn by the Examiner (Answer 6).

1 The pertinent issue turns on whether it was predictable to both generate at a
2 metering device a cryptographic key pair including a private key and a public key
3 if sufficient funds are present in the register, and to activate a private key of a
4 cryptographic key pair in response to funds being deducted from a register.

5 FACTS PERTINENT TO THE ISSUES

6 The following enumerated Findings of Fact (FF) are believed to be supported
7 by a preponderance of the evidence.

8 *Facts Related to Claim Construction*

9 01. The disclosure contains no lexicographic definition of “activate.”

10 02. The only reference to activation in the disclosure is in describing Fig.
11 5, Reference 520, in which funds are deducted from the postage and
12 certificate meter for the generation and the requested certificate which
13 activates the user's private key (Specification 18:5-7). Thus activation
14 occurs by virtue of generating and providing a requested certificate.

15 *Fischer*

16 03. Fischer is directed to a public key or signature cryptosystem having
17 improved digital signature certification for indicating the identity,
18 authority and responsibility levels associated with at least the sender of a
19 digital message (Fischer 1:10-16).

20 04. Fischer describes a hypothetical use for its process, in which General
21 Motors and parties who plan to do business with General Motors or
22 otherwise participate in the public key cryptosystem may initially choose
23 to approach a universally recognized trusted authority e.g.,
24 hypothetically the Bureau of Standards and/or one of the country's

largest banks. Corporate and other participants in this system present a set of public keys (which they are authorized to use by virtue of an action of their corporate board of directors) together with sufficient substantiating documentation and proof, to the meta-certifier. The meta-certifier (or each meta-certifier) in return distributes to General Motors its certification that each of these supplied public keys was created by proper General Motors authorities for their own use. In effect, the meta-certifier is certifying that the party using each key is actually associated with General Motors (Fischer 11:52 - 12:6).

Taylor

05. Taylor is directed to a multi-application data card capable of substituting for multiple data cards with at least three memory banks or storage areas for storing and updating data relating to at least one authorized holder of the card and at least two authorized applications of the card (Taylor 2:52-58).

Facts Related To Differences Between The Claimed Subject Matter And The Prior Art

06. None of the applied references describe actions predicated on ascertaining the presence of sufficient value for a transaction prior to executing the transaction.

Facts Related To The Level Of Skill In The Art

07. Neither the Examiner nor the Appellants have addressed the level of ordinary skill in the pertinent arts of systems analysis and programming, metering systems, and commercial cryptographic systems. We will therefore consider the cited prior art as representative of the level of

ordinary skill in the art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (“[T]he absence of specific findings on the level of skill in the art does not give rise to reversible error ‘where the prior art itself reflects an appropriate level and a need for testimony is not shown’”) (quoting *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 163 (Fed. Cir. 1985).

Facts Related To Secondary Considerations

08. The disclosure describes the advantage of keeping a private key secret as that of being able to enforce charges for any use of that private key (Specification 17:11-14).

PRINCIPLES OF LAW

Claim Construction

During examination of a patent application, pending claims are given their broadest reasonable construction consistent with the specification. *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969); *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

Limitations appearing in the Specification but not recited in the claim are not read into the claim. *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369 (Fed. Cir. 2003) (claims must be interpreted “in view of the specification” without importing limitations from the Specification into the claims unnecessarily).

Although a patent applicant is entitled to be his or her own lexicographer of patent claim terms, in *ex parte* prosecution it must be within limits. *In re Corr*, 347 F.2d 578, 580 (CCPA 1965). The applicant must do so by placing such definitions in the Specification with sufficient clarity to provide a person of

ordinary skill in the art with clear and precise notice of the meaning that is to be construed. *See also In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (although an inventor is free to define the specific terms used to describe the invention, this must be done with reasonable clarity, deliberateness, and precision; where an inventor chooses to give terms uncommon meanings, the inventor must set out any uncommon definition in some manner within the patent disclosure so as to give one of ordinary skill in the art notice of the change).

Obviousness

A claimed invention is unpatentable if the differences between it and the prior art are “such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.” 35 U.S.C. § 103(a) (2000); *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1729-30 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 13-14 (1966).

In *Graham*, the Court held that that the obviousness analysis is bottomed on several basic factual inquiries: “[1] the scope and content of the prior art are to be determined; [(2)] differences between the prior art and the claims at issue are to be ascertained; and [(3)] the level of ordinary skill in the pertinent art resolved.” 383 U.S. at 17. *See also KSR*, 127 S.Ct. at 1734. “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* at 1739.

“When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability.” *Id.* at 1740.

“For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve

1 similar devices in the same way, using the technique is obvious unless its actual
2 application is beyond his or her skill.” *Id.*

3 “Under the correct analysis, any need or problem known in the field of
4 endeavor at the time of invention and addressed by the patent can provide a reason
5 for combining the elements in the manner claimed.” *Id.* at 1742.

6 ANALYSIS

7 *Claims 35 and 37 rejected under 35 U.S.C. § 103(a) as unpatentable over Fischer*
8 *and Taylor.*

9 The Examiner found that Fischer described the cryptographic creation and use
10 of keys as claimed and Taylor described a metering device and stored value card
11 for commercial transactions. The Examiner relied on the findings in a prior Board
12 decision to support his finding that one of ordinary skill would have known to
13 enter Fischer’s use of cryptographic keys in a commercial transaction and therefore
14 to have used a card such as Taylor’s for such a transaction. The Examiner found
15 that one of ordinary skill would have known to make sure there were sufficient
16 funds for a transaction prior to engaging in the transaction (Answer 5-8).

17 The Appellants’ most pertinent contention is that neither reference describes
18 generating a key pair after successfully testing for sufficient funds and activating a
19 private key after deducting funds (App. Br. 6:Bottom ¶ and App. Br. 8:Bottom ¶).

20 We agree with the Appellants. We must initially construe the limitation of
21 activating. The disclosure describes activation as occurring by virtue of generating
22 and providing a requested certificate (FF 01 & 02).

23 While we agree with the Examiner as to what Fischer and Taylor describe (FF
24 03 - 05), the Examiner relies on his finding, independent of these references, that

one of ordinary skill would want to be sure there were sufficient funds before performing a commercial transaction. But the Examiner made no finding that one of ordinary skill would bifurcate the transaction, performing a creating part after determining funds were available and the remainder activating part after payment was made. If the entire transaction were performed after ascertaining funds and after payment was made, this would still be in keeping with the Examiner's findings and be far simpler. The reason disclosed for bifurcating the transaction is to allow multiple transactions that rely on the same key, hence to establish the key once and then activate for each transaction (FF07; App. Br. 5:Bottom ¶). Thus, the alternatives of bifurcating or performing together are not functionally identical, and the Appellants disclose the advantage of the claimed alternative.

Although the Examiner provides a rationale for testing for sufficiency of funds, the Examiner does not provide a finding that one of ordinary skill would perform part of the transaction prior to deducting funds and part after as claimed.

CONCLUSIONS OF LAW

The Examiner has not shown that it was predictable to both generate a metering device a cryptographic key pair including a private key and a public key if sufficient funds are present in the register, and activate a private key of a cryptographic key pair in response to funds being deducted from a register.

The Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 35 and 37 under 35 U.S.C. § 103(a) as unpatentable over the prior art.

DECISION

To summarize, our decision is as follows:

- The rejection of claims 35 and 37 under 35 U.S.C. § 103(a) as unpatentable over Fischer and Taylor is not sustained.

REVERSED

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8 PITNEY BOWES INC.

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12 SHELTON, CT 06484-8000